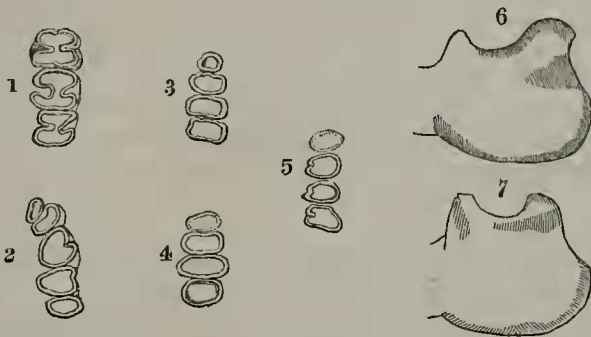


7. NOTES ON THE SPECIES OF SAND-MOLES (GEORYCHUS).

BY DR. J. E. GRAY, F.R.S., ETC.

Dr. Selater having requested me to determine two Sand-Moles (*Georychus*) brought home by Capt. Speke, I have been induced to re-examine all the specimens of the genus in the British Museum.

The species may be divided into two groups according to their fur. Thus the fur of *G. capensis*, *G. albifrons*, and *G. unicolor* is very similar, being soft, long, and fluffy; while the fur of *G. cæcutiens*, *G. damarensis*, and *G. holosericeus* is also much alike, but differs from the fur of the other species in being shorter, rather more rigid, apparently closer.



The genus may be divided into four groups by the form of the grinders, thus:—

A. Grinders $\frac{3-3}{3-3}$. The crown of the upper and lower grinders nearly square, with a fold or groove on the inner and outer edges. GEORYCHUS. (Fig. 1.)

1. GEORYCHUS CAPENSIS, Gray, Cat. B.M. p. 148; see Waterhouse, Ann. N. H. viii. t. 2. f. 2.

The perforation on the side of the skull in front of the orbit oblong, subtrigonal, almost as wide as high; forehead with a slight wing-like expansion over the front of the orbit; the hinder wing of the lower jaw longer than high, with a slightly rounded outline beneath. (Fig. 6.)

Hab. Cape of Good Hope.

2. GEORYCHUS ALBIFRONS, n. s.

Fur ashy grey, with a large white spot on the forehead.

Hab. E. Africa (Capt. Speke).

This species is very like *G. capensis*, both in the colouring of the fur and in the form of the grinders, but is not more than one-third the size, and it has a large white spot on the forehead, and no white on the cheeks. There is the same difference in the size of the skull; and the teeth are more worn, showing that it is as old. The brain-box of the skull is much more ventricose. The teeth have a distinct

fold on the inner side, but scarcely so on the outer; but then they are much worn. The expansion on the hinder part of the lower jaw is nearly of the same form as that of *G. capensis*.

Dr. Peters, in his 'Nat. Reise nach Mossambique,' t. 35. f. 3, gives a figure of the top of what he believes to be a young specimen of *Bathyergus cæcutiens*. It is something like the skull of this species; but it may be the skull of the species to which Dr. Peters refers it, for unfortunately the teeth, which would determine the question, are not figured.

B. Grinders $\frac{4-4}{4-4}$. Crown of the front upper small, oblong, transverse, simple; of second, third, and fourth subtrigonal, with a distinct fold or groove on the broader inner side; the second tooth the smallest: the first lower oblong, small; the second square; the third trigonal; the hinder side the smallest, with a subtrifoliate crown. The hinder wing of the lower jaw broad, nearly as high as wide, with a strongly arched outline below. HELIOPHOBIUS, Peters. (Figs. 2 & 7.)

3. GEORYCHUS PALLIDUS. (Teeth, fig. 2; jaw, fig. 7.)

Rufous grey; side of face, chin, and beneath paler yellow-grey.

Hab. E. Africa (Capt. Speke).

I have very little doubt that this is the animal figured by Dr. Peters (Reise nach Mossambique, t. 31) under the name *Bathyergus argenteo-cinereus*, and of which the skull is the skull figured as *Heliophobius argenteo-cinereus* (t. 35. f. 2), and described under the latter name in the 'Bericht,' 1846, p. 159; but he specially describes it as having six grinders in each jaw, where we have only four. I think that must have been an anomaly in his specimen; indeed the figure does not show six well-formed teeth.

Dr. Peters describes, and his figure represents, the fur as of a uniform colour. Our specimen is paler on the cheeks and underpart of the body.

C. Grinders $\frac{4-4}{4-4}$, all nearly similar and of nearly equal size, the hinder being only slightly the smallest. The crown of the upper ones is oblong, rounded, and with a central fold on the outer side. The crown of the lower with a fold in the middle of each side, the outer fold of the last one being almost, if not quite, obsolete on the outer side. The wing of the hinder part of the lower jaw longer than high, with a nearly straight lower edge. CRYPTOMYS. (Figs. 3 & 6.)

4. GEORYCHUS HOLOSERICUS, Wagner.

Hab. S. Africa.

D. Grinders $\frac{4-4}{4-4}$. The upper grinders oblong, transverse, wider than long, the front the largest; the hinder very small, nearly

circular. The lower grinders oblong, much wider than long; the three front subequal; the hinder smaller, nearly circular. The posterior wing of the lower jaw longer than high, with a nearly straight lower margin. CÆTOMYS. (Figs. 4 & 6.)

5. GEORYCHUS CÆCUTIENS, Gray, Cat. Mam. B.M. 149. (Teeth, fig. 4.)

Bathyergus cæcutiens, Licht.

? *B. hotentottus*, Lesson.

? *B. ludwigii*, A. Smith.

Fur short, close, uniform grey-brown; the perforation on the side of the nose in the front of the orbit large, oblong, erect.

Hab. Natal.

6. GEORYCHUS DAMARENSIS, Gray, Cat. Mamm. B. M. 149. (Teeth, fig. 5.)

Bathyergus damarensis, Ogilby, P. Z. S.

Fur short, uniform grey-brown, with a large white spot on the back of the head.

Hab. Damara-land.

This animal greatly resembles the preceding, but is larger, and has the white spot on the back of the head. The imperfect skull (with part of the teeth) in the Museum resembles the skull of the preceding in most particulars, but is rather larger in size, and the perforation in the side of the nose, at the front edge of the orbit, is smaller and not so oblong, being only a little higher than wide.

8. ADDITIONAL OBSERVATIONS ON DERMATEMYS, A GENUS OF EMYDIDÆ FROM CENTRAL AMERICA. BY DR. J. E. GRAY, F.R.S., ETC.

In the 'Proceedings of the Zoological Society' for 1847, p. 53, I described a new genus of *Emydidæ*, under the name of *Dermatemys mawii*; and in the 'Catalogue of Shield Reptiles in the British Museum' I figured the shell of the animal in detail.

This genus was only established on a single shell, without any part of the animal attached to it, which was then in the Museum of this Society, having been presented by Lieut. Mawe, R.N. This specimen has since been transferred to the collection of the British Museum.

Some doubts have been expressed as to the position of the genus in the family *Emydidæ*; and one naturalist has even gone so far as to doubt the propriety of establishing a genus from the examination of the single specimen, which he was inclined to believe was only an abnormal form of a typical *Emys*. This I could not admit; for, even if it were an accidental monstrosity, we did not know an *Emys* to which it could be referred.